

Date: Sun, 6 Mar 94 04:30:52 PST
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>
Errors-To: Ham-Space-Errors@UCSD.Edu
Reply-To: Ham-Space@UCSD.Edu
Precedence: Bulk
Subject: Ham-Space Digest V94 #49
To: Ham-Space

Ham-Space Digest Sun, 6 Mar 94 Volume 94 : Issue 49

Today's Topics:

 ANS-057 BULLETINS
 APRS operations on 145.79???

 GPS Receiver Boards (2 msgs)

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 27 Feb 94 16:46:01 GMT
From: dog.ee.lbl.gov!ihnp4.ucsd.edu!swrinde!gatech!newsxfer.itd.umich.edu!
nntp.cs.ubc.ca!alberta!fantom!crs-sys!ersys!adec23!ve6mgs!
usenet@ucbvax.berkeley.edu
Subject: ANS-057 BULLETINS
To: ham-space@ucsd.edu

SB SAT
PRELIMINARY RS-15 INFORMATION

HR AMSAT NEWS SERVICE BULLETIN 057.01 FROM AMSAT HQ
SILVER SPRING, MD FEBUARY 26, 1994
TO ALL RADIO AMATEURS BT
BID: \$ANS-057.01

Preliminary RS-15 Data Provided by LW2DTZ

Gustavo Carpignano (LW2DTZ) provides this summary of information regarding
RS-15 which he has obtained from several Russians who are participating in
this project.

According to these sources, the official "presentation" of RS-15 to the Russian Space Agency has been delayed until 20-MAR-94. The launch date has shifted its position for launch since the Cosmodrome is not quite ready for it. It is reported that RS-15 will be launched by a Rokot vehicle, which is a refurbished SS-19 with the addition of a third stage.

Some data regarding equipment and orbital parameters are:

Uplink: 145.857 - 145.897 MHz
Downlink: 29.351 - 29.397 MHz
Beacon #1 29.398 MHz Power 0.4 or 1.2 W
Beacon #2 29.353 MHz Power same as Beacon #1
Antenna 1/4 wave
Height 2,300 KM
Inclination 67 degrees

Much of this information has also been confirmed by Vern Riportella (WA2LQQ) by his sources in Russia.

[The AMSAT News Service (ANS) wishes to thank Gustavo Carpignano (LW2DTZ) of AMSAT-LU and Vern Riportella (WA2LQQ) for the information used in preparing this bulletin.]

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SB SAT
G0/K8KA RECEIVES HIS PHD

HR AMSAT NEWS SERVICE BULLETIN 057.02 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 26, 1994
TO ALL RADIO AMATEURS BT
BID: \$ANS-057.02

G0/K8KA Receives Doctorial Degree From University of Surrey

It is with very great pleasure that the amateur space community congratulates Jeff Ward (K8KA/G0SUL) on the award of his PhD thesis after a "viva voce" examination Thursday, 24-FEB-94 at the University of Surrey in England. Dr. Martin Sweeting (G3YJ0) announced that Jeff's thesis, entitled "The Design, Implementation and In-Orbit Demonstration of a Store & Forward Digital Communication System for Low Earth Orbit Satellites", was accepted by the University of Surrey Examiners unanimously without need for any corrections. G3YJ0 notes that such unconditional acceptance is a rare occurrence.

The amateur space community joins G3YJ0 in saying, "Well done Dr. Ward"!

Bill Tynan W3X0, AMSAT-NA President says that he is especially pleased with

Jeff's accomplishment because they represent yet another example of the role that amateur radio can play in education at all levels.

[The AMSAT News Service (ANS) would like to thank Martin Sweeting (G3YJO) for the information used in this bulletin.]

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SB SAT

BREMSAT TELEMETRY REPORTS NEEDED

HR AMSAT NEWS SERVICE BULLETIN 057.03 FROM AMSAT HQ
SILVER SPRING, MD FEBUARY 26, 1994
TO ALL RADIO AMATEURS BT
BID: \$ANS-057.03

BREMSAT Telemetry Reports Requestedle For A0-13

The German BREMSAT satellite was deployed on the STS-60 shuttle mission in early February as a "getaway special." It is a scientific satellite carrying a number of experiments including measurements of atomic oxygen, micro-meteor/dust impacts, etc. BREMSAT is in a low orbit and is predicted to enjoy a lifespan of only 45 days.

Oliver Amend (DG6BCE) has asked radio amateurs for assistance in monitoring BREMSAT's telemetry during reentry. Oliver is a member of the German "Technical Youth Leisure Education Association." They hope to compile the reentry telemetry from several groundstations located along the reentry path. However, the path is difficult to predict and he is looking for amateurs -- particularly those in the southern hemisphere -- who can act as monitoring stations to fill any gaps in their coverage.

BREMSAT transmits 9600 bps telemetry on 137.8 MHz. The data can be received with a simple bi-phase decoder. Construction details are available directly from DG6BCE.

If you are interested in monitoring the final moments of BREMSAT, or if you know anyone who is, please contact Oliver Amend at the following address:

Oliver Amend
Durerstr. 56
D-28844 Weyhe-Leeste
Germany

At this late date, it may be best to send a fax message to him if you have the capability. Address the fax cover sheet to:

Oliver Amend
c/o DST

fax number: 49-421-40-46-60

/EX
SB SAT
AO-13 OPERATIONS NET

HR AMSAT NEWS SERVICE BULLETIN 057.04 FROM AMSAT HQ
SILVER SPRING, MD FEBUARY 26, 1994
TO ALL RADIO AMATEURS BT
BID: \$ANS-057.04

Current AMSAT Operations Net Schedule For AO-13

AMSAT Operations Nets are planned for the following times. Mode-B Nets are conducted on AO-13 on a downlink frequency of 145.950 MHz. If, at the start of the OPS Net, the frequency of 145.950 MHz is being used for a QSO, OPS Net enthusiasts are asked to move to the alternate frequency of 145.955 MHz.

Date	UTC	Mode	Phs	NCS	Alt NCS
05-Mar-94	2200	B	077	W9ODI	VE2LVC
13-Mar-94	0130	B	075	VE2LVC	W9ODI
19-Mar-94	1730	B	073	W5IU	WA5ZIB
26-Mar-94	2130	B	084	WA5ZIB	W5IU

Any stations with information on current events would be most welcomed. Also, those interested in discussing technical issues or who have questions about any particular aspect of OSCAR statellite operations, are encouraged to join the OPS Nets. If neither of the Net Control Stations show up, any participant is invited to act as the NCS.

AO-13 ZRO Tests For March 1994

The following schedule of Mode "B" tests were chosen for convenient operating times and favorable squint angles. The tests can be heard on 145.840 MHz. Andy McAlister (WA5ZIB) will conduct all the tests. Mode "JL" tests will no longer occur due to the failure of AO-13's 70CM transmitter.

Day	Date (UTC)	Time	Areas covered
Saturday	Mar. 19, 1994	1930 UTC	NA, SA, Europe, Africa
Saturday	Mar. 26, 1994	2315 UTC	NA, SA

Note that the dates and days are shown in "UTC". Any changes will be announced as soon as possible via the AMSAT HF and AO-13 Operations

Nets.

All listener reports with date of test and numbers copied should be sent to Andy MacAllister (WA5ZIB), AMSAT V.P. User Operations, 14714 Knights Way Drive, Houston, TX 77083-5640. A report will be returned verifying the level of accurate reception. An S.A.S.E. is appreciated but not required.

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SB SAT

WEEKLY OSCAR STATUS REPORTS

HR AMSAT NEWS SERVICE BULLETIN 057.05 FROM AMSAT HQ
SILVER SPRING, MD FEBUARY 26, 1994
TO ALL RADIO AMATEURS BT
BID: \$ANS-057.05

Weekly OSCAR Status Reports: 26-FEB-94

A0-13: Current Transponder Operating Schedule:

L QST

Mode-B : MA 0 to MA 90 |

Mode-BS : MA 90 to MA 120 |

Mode-S : MA 120 to MA 145 |<- S transponder; B trsp. is OFF

Mode-S : MA 145 to MA 150 |<- S beacon only

Mode-BS : MA 150 to MA 180 | Blon/Blat 180/0

Mode-B : MA 180 to MA 256 |

Omnis : MA 230 to MA 30 | Move to attitude 240/0, Apr 04

[G3RUH/DB20S/VK5AGR]

F0-20: The following is the current schedule for transponder operations:

ANALOG MODE:

23-FEB-94 8:05 -TO- 02-MAR-94 6:40 UTC

09-MAR-94 7:05 -TO- 16-MAR-94 7:30 UTC

23-MAR-94 7:52 -TO- 30-MAR-94 8:15 UTC

DIGITAL MODE: Unless otherwise noted above.

[Kazu Sakamoto (JJ1WTK) qga02014@niftyserve.or.jp]

A0-16: Operating normally. [WH6I]

L0-19: Operating normally. [WH6I]

I0-26: The BBS is up and running (1200 baud) and seeing a lot of use.
[WH6I]

K0-23: Up and running. [WH6I]

K0-25: The BBS is running. After the first "bunch" of images, there have been no new ones. The format for the smaller image files will

apparently not be made available to amateurs. [WH6I]

RS-12: Last week ZS6AOP asked what the preferred mode of operation is over Europe and the US? AL7MK reports that while he lived in Alaska, about 75% of his QSOs on RS-12 were accomplished using CW because, as he explains, "it worked better on marginal passes." Today AL7MK lives in CT. His satellite operations only include MIR using his H/T with a 30 watt amplifier at the moment until he brings his HF gear out of storage. [AL7MK @ W1NRG.CT]

The AMSAT NEWS Service (ANS) is looking for volunteers to contribute weekly OSCAR status reports. If you have a favorite OSCAR which you work on a regular basis and would like to contribute to this bulletin, please send your observations to WD0HHU at his CompuServe address of 70524,2272, on INTERNET at wd0hhu@amsat.org, or to his local packet BBS in the Denver, CO area, WD0HHU @ W0LJF.#NECO.CO.USA.NOAM. Also, if you find that the current set of orbital elements are not generating the correct AOS/LOS times at your QTH, PLEASE INCLUDE THAT INFORMATION AS WELL. The information you provide will be of value to all OSCAR enthusiasts.

/EX

Date: 1 Mar 94 05:52:41 GMT
From: sdd.hp.com!think.com!spdcc!russell@hplabs.hp.com
Subject: APRS operations on 145.79???
To: ham-space@ucsd.edu

Hello all,

Recently, amateurs in the Omaha area where I live have been looking into getting an APRS network set up, and one thing that's been a concern of several people (myself included) is the fact that the "standard" frequency that is being used for APRS is 145.79 MHz.

This seems to us to be much too close to the 145.80-146.00 satellite band, especially given the fact that APRS is designed for wide-area operation and people will probably be running some high-powered digipeaters, at least on a temporary basis for special events and probably on a permanent basis.

It has also been mentioned that this frequency falls in a subband that has been suggested for experimental uses, and a permanent packet network based on established AX.25 protocols hardly seems experimental.

What do you think? Are we being paranoid, or is it just that APRS isn't popular enough for people to have noticed? I'd like to see this

discussed before people start putting up fixed-frequency remote digis, etc that will be VERY hard to get moved. APRS looks like a great system, and I think it does need a coordinated frequency, but I don't think 145.79 should be that frequency.

--

Tim Russell n0zhy@wd0har.#ene.ne.us.na russell@spdcc.com
Most people would rather have comfort than freedom. The paradox is that you can't really have the former, in the long term, unless you have the latter.
-- Amanda Walker

Date: Fri, 4 Mar 94 18:34:14 GMT
From: ihnp4.ucsd.edu!ucsnews!sol.ctr.columbia.edu!howland.reston.ans.net!
europa.eng.gtefsd.com!ulowell!xn.ll.mit.edu!ll.mit.edu!wjc@network.ucsd.edu
Subject: GPS Receiver Boards
To: ham-space@ucsd.edu

In article <jyoungberg.1.000B87CC@draper.com>, jyoungberg@draper.com (James W. Youngberg) writes:

|> I've followed various GPS threads as they've come and gone. In order to pose
|> volume/price arguments to folks in the business, what would be the size of the
|> amateur market for GPS engines?
|>
|> Presume an engine consists of the entire RX, minus antenna, including a data
|> port (probably NMEA 0183), on a PC board. Examples are currently manufactured
|> by Rockwell, Magellan, Canadian Marconi, Plessey, and Trimble, among others.
|> Marketed in the \$500 class for single-unit quantities.
|>
|> Skip, K1NKR
|>

How many channels would I get for \$500?

Bill Chiarchiaro N1CPK
wjc@ll.mit.edu

Date: 4 Mar 1994 23:38:11 GMT
From: news.cerf.net!pravda.sdsc.edu!nic-nac.CSU.net!news.Cerritos.edu!
news.Arizona.EDU!math.arizona.edu!noao!ncar!gatech!europa.eng.gtefsd.com!
news.umbc.edu!eff!news.kei.com!@ihnp4.ucsd.edu
Subject: GPS Receiver Boards
To: ham-space@ucsd.edu

The Garmin GPS-10 receiver board is less than \$350 in quantities of 2 (two). It is an 8-channel receiver with NMEA output. They can supply a program that runs on a PC and displays the data from the GPS-10, connected to one of the serial ports. The above price includes the antenna. One of the reasons that we like it is that it only consumes 1 watt (0.2A @ 5V). Garmin can be reached at (800)800-1020. Note that this is not an endorsement, etc., etc.....

Steven Hunter

End of Ham-Space Digest V94 #49

